

WHAT IS CLAIMED IS:

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1. An information reproducing method comprising the steps of:

reading information from an information medium that is rotated; and

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determining a rotation velocity of the information medium on the basis of a data transfer rate based on a specification of a read request.

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2. An information reproducing method comprising the steps of:

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reading information from an information medium that is rotated; and

measuring an average transfer rate in data read and lowering a rotation velocity of the information medium if the average transfer rate measured is equal to or lower than a predetermined threshold value.

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5 3. An information reproducing method comprising the steps of:

reading information from an information medium that is rotated; and

measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer rate measured is greater than a predetermined threshold value.

15 4. An information reproducing method comprising the steps of:

reading information from an information medium that is rotated;

20 measuring an average transfer rate in data read and raising a rotation velocity of the information medium if the average transfer rate measured is greater than a predetermined threshold value; and

25 lowering the rotation velocity if the average transfer rate is equal to or lower than the predetermined threshold value.

5 5. The information reproducing method as claimed in
any of claims 2 to 4, further comprising the steps of:

 monitoring whether the read request is issued; and

 restarting measurement of the average transfer rate if
the read request is not issued for a predetermined time in
10 measurement of the average transfer rate.

15 6. The information reproducing method as claimed in
any of claims 2 to 4, further comprising the steps of:

 monitoring a read address of the read request; and

 restarting measurement of the average transfer rate if
the read address is arranged in a formation other than an increasing
20 order.

25 7. The information reproducing method as claimed in

any of claims 2 to 4, further comprising the steps of:

determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

validating the average transfer rate if the average transfer rates obtained a number of times of measurement are close to each other.

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8. The information reproducing method as claimed in claim 4, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

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9. The information reproducing method as claimed in any of claims 2 through 4, further comprising the steps of:

temporarily storing information read from the

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information medium in a cache memory;

pre-reading information if a space is available in the cache memory; and

causing measurement of the average transfer rate to be
5 initiated when the cache memory is full of data and the pre-reading of information is completed in a case where information is read from the information medium at a maximum rate.

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10. An information reproducing apparatus comprising:

a motor rotating an information medium;

an optical pickup reading information from the
15 information medium; and

a part determining a rotation velocity of the information medium on the basis of a data transfer rate based on a specification of a read request.

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11. An information reproducing apparatus comprising:

a motor rotating an information medium;

an optical pickup reading information from the
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information medium;

a measuring part measuring an average transfer rate in data read;

5 a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

a rotation velocity control part lowering a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured is equal to or lower than a predetermined threshold value.

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12. An information reproducing apparatus comprising:

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a motor rotating an information medium;

an optical pickup reading information from the information medium;

a measuring part measuring an average transfer rate in data read;

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a comparing part comparing the average transfer rate measured with a predetermined threshold value; and

25 a rotation velocity control part raising a rotation velocity of the information medium by the motor if a result of comparison shows that the average transfer rate measured exceeds a predetermined threshold value.

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13. An information reproducing apparatus comprising:
a motor rotating an information medium;

an optical pickup reading information from the
information medium;

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a measuring part measuring an average transfer rate in
data read;

a comparing part comparing the average transfer rate
measured with a predetermined threshold value; and

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a rotation velocity control part lowering a rotation
velocity of the information medium by the motor if a result of
comparison shows that the average transfer rate measured is equal
to or lower than a predetermined threshold value and raising the
rotation velocity if the result of comparison shows the average
transfer rate measured exceeds the predetermined threshold value.

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14. The information reproducing apparatus as claimed
in any of claims 11 through 13, further comprising:

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a monitoring part monitoring whether the read request is

issued; and

a restarting part restarting measurement of the average transfer rate if the read request is not issued for a predetermined time in measurement of the average transfer rate.

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15 The information reproducing apparatus as claimed
10 in any of claims 11 through 13, further comprising:

a monitoring part monitoring a read address of the read request; and

a restarting part restarting measurement of the average transfer rate if the read address is arranged in a formation other than
15 an increasing order.

20 16. The information reproducing apparatus as claimed
in any of claims 11 to 13, further comprising:

a determining part determining validity of the average transfer rate on the basis of average transfer rates obtained a number of times of measurement; and

25 a validating part validating the average transfer rate if

the average transfer rates obtained a number of times of measurement are close to each other.

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17. The information reproducing apparatus as claimed in claim 13, wherein a first threshold value which is one of said predetermined threshold value and is used for raising the rotation velocity of the information medium is greater than a second threshold value which is another one of said predetermined threshold value and is used for lowering the rotation velocity of the information medium.

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18. The information reproducing apparatus as claimed in any of claims 11 to 14, further comprising:

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a storing part temporarily storing information read from the information medium in a cache memory;

a pre-reading part pre-reading information if a space is available in the cache memory; and

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a part causing measurement of the average transfer rate to be initiated when the cache memory is full of data and the pre-

reading of information is completed in a case where information is read from the information medium at a maximum rate.